

ABSTRACT

Method animal subject from lethal infection with *Bacillus anthracis* (*B. anthracis*) are provided. One method comprises administering *B. anthracis* lethal factor (LF) or an immunogenic fragment thereof to the subject. A second method comprises administering LFor an immunogenic fragment thereof and the *B anthracis* protective antigen (PA) to the subject. A third method comprises administering a polynucleotide which encodes *B. anthracis* LF or an immunogenic fragment thereof to the subject. A fourth method comprises administering a polynucleotide which encodes LF or an immunogenic fragment thereof and a polynucleotide which encodes the *B. anthracis* PA to the subject. The present invention also relates to a protein or peptide based-immunogenic composition for preparing a vaccine which is capable of prophylactically protecting a subject against lethal effects of infection with *B. anthracis*.